

### **DETAILED ACTION**

Claims 1-17 and 19-114 are pending. Claims 7-17, 19-21, 33-62, 67-80, 85- 89, 93-97, 99-101,103-105 and 107-109 have been withdrawn. Claims 1 and 7 have been amended. Claims 111-114 are new.

**This Examiner's Amendment is in addition to the Notice of Allowance mailed on 01/05/12.**

#### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 31, 2011 has been entered.

#### ***Amendments***

**The application has been amended as follows:**

1. Please cancel claim 15.
2. Add new claim 115 as follows:  
  
--115. The copper alloy material according to Claim 46, wherein the copper alloy material has a crystal structure whose dendrite network is fractured after melt-solidification.--
3. Please cancel claim 16.
4. Add new claim 116 as follows:

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--116. The copper alloy material according to Claim 115, wherein the two-dimensional crystal grain structure is in a circular form or a form similar to the circular form after melt-solidification.--

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Polyansky whose telephone number is (571)270-5904. The examiner can normally be reached on Monday-Friday, 8:00 a.m. EST - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jessica L. Ward can be reached on 571-272-1223. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alexander Polyansky/  
Examiner, Art Unit 1735

/JESSICA L. WARD/  
Supervisory Patent Examiner, Art Unit 1735